



NOAA in Your Backyard – The Great Lakes Region

Educational Opportunities and Education/Outreach Specialists for MN, WI, MI, IN, IL, OH, Western PA, and Western NY

NOAA in Your State – State by State Listings of NOAA Facilities and Programs

** A summary of NOAA facilities, staff, programs, or activities based in, or focused on, your state or territory.*

- <http://www.legislative.noaa.gov/NIYS/>

National Weather Service – School Visits, Forecast Office Tours, Student and Educator Resources

** The National Weather Service provides weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas.*

- **Duluth Weather Forecast Office (Duluth, MN)** – <http://www.weather.gov/dlh/ouroffice>
Contact: Carol Christenson (Warning Coordination Meteorologist) - carol.christenson@noaa.gov
- **Twin Cities Weather Forecast Office (Chanhassen, MN)** – <http://www.weather.gov/mpx/>
Contact: Todd Krause (Warning Coordination Meteorologist) - todd.krause@noaa.gov
- **Green Bay Weather Forecast Office (Green Bay, WI)** – <http://www.weather.gov/grb/ouroffice>
Contact: Jeff Last (Warning Coordination Meteorologist) - jeff.last@noaa.gov
- **Milwaukee Weather Forecast Office (Sullivan, WI)** – <http://www.weather.gov/mkx/office>
Contact: Tim Halbach (Warning Coordination Meteorologist) - timothy.j.halbach@noaa.gov
- **Chicago Weather Forecast Office (Romeoville, IL)** – <http://www.crh.noaa.gov/lot/?n=office>
Contact: Michael Bardou (Warning Coordination Meteorologist) - mike.bardou@noaa.gov
- **Indianapolis Weather Forecast Station (Indianapolis, IN)** – <http://www.weather.gov/ind/aboutus>
Contact: David Tucek (Warning Coordination Meteorologist) – david.tucek@noaa.gov
- **Marquette Weather Forecast Office (Marquette, MI)** – <http://www.weather.gov/mqt/office>
Contact: Matthew Zika (Warning Coordination Meteorologist) - matthew.zika@noaa.gov
- **Grand Rapids Weather Forecast Office (Grand Rapids, MI)** – <http://www.weather.gov/grr/>
Contact: James Maczko (Warning Coordination Meteorologist) - james.maczko@noaa.gov
- **Gaylord Weather Forecast Office (Gaylord, MI)** – <http://www.weather.gov/apx/>
Contact: James Keysor (Warning Coordination Meteorologist) - james.keysor@noaa.gov
- **Detroit/Pontiac Weather Forecast Office (White Lake, MI)** – <http://www.weather.gov/dtx/office3>
Contact: Richard Pollman (Warning Coordination Meteorologist) - richard.pollman@noaa.gov
- **Cleveland Weather Forecast Office (Cleveland, OH)** – <http://www.weather.gov/cle/Office>
Contact: Karen Clark (Meteorologist) - karen.kahl@noaa.gov
- **Cincinnati Weather Forecast Office (Wilmington, OH)** – <http://www.weather.gov/iln/>
Contact: Brian Coniglio (Meteorologist) - brian.coniglio@noaa.gov
- **Buffalo Weather Forecast Office (Buffalo, NY)** – <http://www.weather.gov/buf/>
Contact: Judith Levan (Warning Coordination Meteorologist) - judith.levan@noaa.gov
- **Pittsburgh Weather Forecast Office (Moon Township, PA)** – <http://www.weather.gov/pbz/>
Contact: Fred McMullen (Warning Coordination Meteorologist) - fred.mcmullen@noaa.gov

Great Lakes Environmental Research Laboratory (MI) – Student Opportunities, Laboratory Facilities, NOAA Scientists

** GLERL conducts innovative research on the dynamic environments and ecosystems of the Great Lakes to provide information for resource use and management decisions that lead to safe and sustainable ecosystems, ecosystem services, and human communities.*

- **Central Offices** – <http://www.glerl.noaa.gov/pr/edu/education.html>
Contact: Margaret Lansing (Information Services Lead/Ecologist) - margaret.lansing@noaa.gov
- **Lake Michigan Field Station (Muskegon, MI)** – <http://www.glerl.noaa.gov/lmfs/>
Contact: Dennis Donahue (Marine Superintendent) - dennis.donahue@noaa.gov



National Estuarine Research Reserve System – Field Trips, Professional Development, Educator Resources

** The National Estuarine Research Reserves System protects more than 1.3 million coastal and estuarine acres in 28 reserves located in 22 states and Puerto Rico for purposes of long-term research, environmental monitoring, education and stewardship.*

- **National Websites** – www.nerrs.noaa.gov and www.estuaries.noaa.gov
- **Old Woman Creek Reserve (OH)** – <http://wildlife.ohiodnr.gov/oldwomancreek#tabr4>
Contact: Jennifer Bucheit (Education Coordinator) - Jennifer.Bucheit@dnr.state.oh.us
- **Lake Superior Reserve (WI)** – <http://lsnerr.uwex.edu/education.html>
Contact: Deanna Erickson (Education Coordinator) - deanna.erickson@ces.uwex.edu

NOAA National Marine Sanctuaries – Field Trips, Professional Development, Educator Resources

** NOAA's 14 National Marine Sanctuaries serve as the trustee for the nation's system of marine protected areas, to conserve, protect, and enhance their biodiversity, ecological integrity and cultural legacy.*

- **National Website** – <http://sanctuaries.noaa.gov/education/welcome.html>
- **Thunder Bay Sanctuary (Alpena, MI)** – <http://thunderbay.noaa.gov/education/welcome.html>
Contact: Sarah Waters (Education and Outreach Coordinator) - sarah.a.waters@noaa.gov

National Sea Grant Program – Professional Development, Curriculum, Student and Educator Resources

** Sea Grant is a nationwide network of 32 university-based programs that conduct scientific research, education, training, and extension projects designed to foster science-based decisions about the use and conservation of our aquatic resources.*

- **Great Lakes Sea Grant Educator Resources**
Teaching Great Lakes Science Lessons - <http://www.miseagrant.umich.edu/lessons/>
Great Lakes FieldScope - <http://greatlakes.fieldscope.org/v3>
- **Illinois-Indiana Sea Grant** – <http://iiseagrant.org/education.php>
Contact: Terry Hallesy (Education Coordinator) - thallesy@illinois.edu
- **Michigan Sea Grant** – <http://www.miseagrant.umich.edu/education/>
Contact: Steve Stewart (Senior Extension Educator) - stew@msu.edu
- **Minnesota Sea Grant** – <http://www.seagrant.umn.edu/educators/>
Contact: Cindy Hagley (Environmental Quality Extension Educator) - chagley@umn.edu
- **New York Sea Grant** – <http://www.seagrant.sunysb.edu/articles/t/focus-on-education>
Contact: Helen Domske (Coastal Education Specialist) - hmd4@cornell.edu
- **Ohio Sea Grant** – <http://ohioseagrant.osu.edu/archive/education/>
Contact: Lyndsey Manzo (Education Specialist) - manzol@westerville.k12.oh.us
- **Pennsylvania Sea Grant** – <http://www.paseagrant.org/education/>
Contact: Marti Martz (Senior Outreach Specialist) - mam60@psu.edu
- **Wisconsin Sea Grant** – <http://www.seagrant.wisc.edu/home/ResourcePages/Educators.aspx>
Contact: Kathy Kline (Education Outreach Specialist) - kkline@aqua.wisc.edu

Integrated Ocean Observing System (IOOS) – Curriculum, Real World Data, and Multimedia

** The Great Lakes Observing System (GLOS) is a coordinated network of people, equipment and technology working together to provide data about the Great Lakes in a variety of formats and applications.*

- **IOOS National Website** – www.ioos.noaa.gov/education/welcome.html
- **GLOS (Ann Arbor, MI)** – <http://glos.us/what-we-do/learn-engage>
Contact: Andrea Maguire (Program Coordinator) - amaguire@glos.us

Great Lakes Information Network (GLIN) – Great Lakes Lessons, Calendar of Events, Background Information

** GLIN is a partnership that provides information related to the binational Great Lakes-St. Lawrence region of North America, including data and information about the region's environment, economy, tourism, education and more.*

- **Located in Ann Arbor, MI** – <http://www.great-lakes.net/teach/about/>
Contact: Christine Manninen (Communications Director) - manninen@glc.org

Cooperative Institute for Limnology and Ecosystems Research (CILER) – Seminar Series, Student and Educator Resources

** CILER's vision is to enhance the quality of the Great Lakes ecosystem through partnerships between universities, NOAA scientists, and other stakeholders and translate their research into productive outcomes through outreach and education.*

- **Located in Ann Arbor, MI** – <http://ciler.snre.umich.edu/education>

Contact: Sonia Joseph-Joshi (Communications and Outreach Specialist) - soniajos@umich.edu

Cooperative Institute for Meteorological Satellite Studies (CIMSS) – Educator Workshops, Scholarships, Educator Resources

** CIMSS is a collaboration between NOAA and the University of Wisconsin-Madison in atmospheric and Earth science utilizing satellite technology. Government, university scientists, and engineers work together on projects involving remote sensing of the Earth.*

- **Located in Madison, WI** – <https://cimss.ssec.wisc.edu/education/>

Contact: Margaret Mooney (Education and Public Outreach Director) - margaret.mooney@ssec.wisc.edu

Midwestern Regional Climate Center (MRCC) – Student and Educator Resources, Climate Data, Citizen Science

** The MRCC serves the nine-state Midwest region to better explain climate and its impacts on the Midwest, provide practical solutions to specific climate problems, and develop climate information for the Midwest on climate-sensitive issues such as agriculture, climate change, energy, the environment, human health, risk management, transportation, and water resources.*

- **Located in Champaign, Illinois** – <http://mrcc.isws.illinois.edu/resources/education.jsp>

Contact: Molly Woloszyn (Extension Climate Specialist) - mollyw@illinois.edu

Great Lakes B-WET – Competitive Grants for Educator Watershed Training Programs

** B-WET is an environmental education program that promotes locally relevant, experiential learning in the K-12 environment.*

- **National Website** – <http://www.oesd.noaa.gov/grants/bwet.html#page=about>

- **Great Lakes B-WET** – <http://thunderbay.noaa.gov/B-WET/>

Contact: Cathy Green (B-WET Great Lakes Program Manager) - cathy.green@noaa.gov

National Ocean Science Bowl – Regional Competitions in the Ocean Sciences

** The NOSB is a national high school academic competition with regional competitions for student teams to test their knowledge of the marine sciences including biology, chemistry, physics, and geology.*

- **National Website** – <http://nosb.org>

- **Lake Sturgeon Bowl (WI)** – <http://uwm.edu/freshwater/community-outreach/sturgeon-bowl/>

Contact: Liz Sutton (Region Coordinator) - sturgeonbowl@uwm.edu

- **Great Lakes Bowl (MI)** – <http://www.miseagrant.umich.edu/education/nosb/>

Contact: Kevin Keeler (Region Coordinator) - kevinmke@umich.edu

- **Penguin Bowl (OH/PA)** – <http://class.ysu.edu/%7Enosb/>

Contact: Dr. Ray Beiersdorfer (Region Coordinator) - rebeiersdorfer@ysu.edu

- **Bay Scallop Bowl (NY)** – <http://you.stonybrook.edu/bayscallopbowl/>

Contact: Bill Wise (Region Coordinator) - William.Wise@stonybrook.edu

Center for Great Lakes Literacy (CGLL) – Professional Development, Curricular Resources, Scientist Connections

** CGLL is a collaborative effort led by Sea Grant educators throughout the Great Lakes watershed to foster informed and responsible decisions that advance basin-wide stewardship by providing hands-on experiences, educational resources and networking opportunities that promote Great Lakes literacy among an engaged community of educators, scientists and citizens.*

- **CGLL Website** – www.cgll.org

- **Great Lakes Curriculum Clearinghouse** – www.greatlakesliteracy.net

Contact: Marti Martz (Pennsylvania Sea Grant) - mam60@psu.edu

Local Weather Events – Local Historical Weather Data

- Twin Cities Weather Records – <http://www.weather.gov/mpx/mspclimate>
- Minnesota Tornado Statistics – <http://www.weather.gov/mpx/minnesotatornadoes>
- The Most Devastating Forest Fire in American History – <http://www.weather.gov/grb/peshtigofire>
- NE Wisconsin Significant Weather Events – <http://www.weather.gov/grb/events>
- The Edmund Fitzgerald – http://www.weather.gov/mqt/Edmund_Fitzgerald
- Northern Illinois and NW Indiana Weather Events – <http://www.weather.gov/lot/science>
- Central Indiana Weather Events – <http://www.weather.gov/ind/archive>
- Cleveland Weather Events – <http://www.weather.gov/cle/LocalWeatherEvents>
- SE Michigan Weather and Climate Records – <http://www.weather.gov/dtx/clitop>
- This Date in Western New York Weather – <http://www.weather.gov/buf/wxhis.html>
- Pittsburgh Weather Events – <http://www.weather.gov/pbz/past>
- Extreme Weather Events in Southern Wisconsin – <http://www.weather.gov/mkx/documented-storms>
- Great Lakes Hurricane of 1913 – http://www.nws.noaa.gov/com/weatherreadynation/news/131107_white.html#.VXsRzmBRfdk
- Searchable Storm Events Database – <http://www.ncdc.noaa.gov/stormevents/>

Great Lakes Data Resources – Historical and Real-Time Data

- Great Lakes Aquatic Nonindigenous Species Information System – <http://www.glerl.noaa.gov/res/Programs/glansis/>
- Great Lakes CoastWatch – <http://coastwatch.glerl.noaa.gov/> or <http://www.coastwatch.msu.edu/>
- Great Lakes Coastal Forecasting System – <http://www.glerl.noaa.gov/res/glcfs/>
- Rip Current Forecasts – <http://www.ripcurrents.noaa.gov/forecasts.shtml>
- Great Lakes Bathymetry – <http://www.ngdc.noaa.gov/mgg/greatlakes/greatlakes.html>
- North Central River Forecast Center – <http://www.weather.gov/ncrfc/>
- Ohio River Forecast Center – <http://www.weather.gov/ohrfc/>
- Central Great Lakes Graphical Weather Forecasts – <http://graphical.weather.gov/sectors/centgrtlakes.php>
- National Seasonal Drought Outlook – http://www.cpc.ncep.noaa.gov/products/expert_assessment/sdo_summary.html
- Great Lakes Marine Forecast – <http://www.crh.noaa.gov/greatlakes/>
- Great Lakes Beach Forecasts – <http://www.weather.gov/greatlakes/beachhazards>
- Great Lakes Data Portal – <http://glos.us/data-access/data-portal>
- Great Lakes Boaters' Forecast Data Tool – <http://glos.us/data-access/boaters-forecast>
- Huron-Erie Water Level/Current Forecast – <http://glos.us/data-tools/huron-erie-connecting-waterways-forecasting-system>
- Great Lakes Acoustic Telemetry Data (Fish Tags) – <http://glos.us/node/215>

NOAA Science On a Sphere® (SOS) Locations – Earth Systems Data Shown on a 6-foot Globe

* SOS is a room-sized, global display system that uses computers and video projectors to display planetary data onto a six foot diameter sphere, analogous to a giant animated globe. It was developed by researchers at NOAA to help illustrate complex environmental processes (atmospheric storms, ocean currents, climate change, etc...) in a captivating way.

- Aldo Leopold Nature Center (Monona, WI) – <http://www.naturenet.com/alnc/>
- Boonshoft Museum of Discovery (Dayton, OH) – <http://www.boonshoftmuseum.org/>
- Cyberinfrastructure Building at Indiana University (Bloomington, IN) – <http://it.iu.edu/cib/>
- Science Central (Fort Wayne, IN) – <http://sciencecentral.org/>
- Detroit Zoological Society (Royal Oak, MI) – <http://www.detroitzoo.org/>
- Great Lakes Maritime Heritage Center (Alpena, MI) – <http://thunderbay.noaa.gov/maritime/glmhc.html>
- Harsco Science Center (Harrisburg, PA) – <http://www.whitakercenter.org/science/index.asp>
- Museum of Science and Industry (Chicago, IL) – <http://www.msichicago.org/>
- Precision Planting (Tremont, IL) – <http://www.precisionplanting.com/>
- Science Museum of Minnesota (St. Paul, MN) – <http://www.smm.org/>
- Wild Center (Tupper Lake, NY) – <http://www.wildcenter.org/>